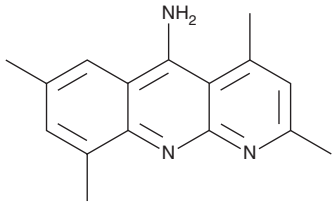
# PRODUCT INFORMATION

## BMH-22

*Item No. 46502*

**CAS Registry No.:** 309726-06-5
**Formal Name:** 2,4,7,9-tetramethyl-benzo[b][1,8] naphthyridin-5-amine
**MF:** $C_{16}H_{17}N_3$
**FW:** 251.3
**Purity:** ≥95%
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

BMH-22 is supplied as a solid. A stock solution may be made by dissolving the BMH-22 in the solvent of choice, which should be purged with an inert gas. BMH-22 is soluble (≥10 mg/ml) in ethanol and DMSO.

### Description

BMH-22 is an inhibitor of RNA polymerase I-mediated transcription and an inducer of RNA polymerase I transcription stress.[1] It inhibits nascent rRNA synthesis and reduces the expression of the 45S rRNA precursor in A375 melanoma cells at 10 µM. It also induces segregation of the nucleolus in p53-null Saos-2 osteosarcoma cells and destabilizes the RNA polymerase I subunit RPA194 in a proteasome-dependent manner in A375 cells. BMH-22 reduces the proliferation of HCT116 cells in a p53-independent manner but stabilizes p53 in A375 cells.[1,2] It induces cell cycle arrest at the $G_2$/M phase in BC3 B cell lymphoma cells and reduces tumor growth in an orthotopic BC3 mouse xenograft model at 20 mg/kg.[2]

### References


1. Peltonen, K., Colis, L., Liu, H., *et al.* Small molecule BMH-compounds that inhibit RNA polymerase I and cause nucleolar stress. *Mol. Cancer Ther.* **13(11)**, 2537-2546 (2014).
2. Peltonen, K., Colis, L., Liu, H., *et al.* Identification of novel p53 pathway activating small-molecule compounds reveals unexpected similarities with known therapeutic agents. *PLoS One* **5(9)**, e12996 (2010).



**WARNING**
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**
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